schools so that the work of the boys may have in it not less of abstract ideas, but more of that direct experience upon which they may base their own abstractions.

I trust Mr. Mazumder will find his reward for his enthusiastic interest in the subject and for his keenness to discover an Indian basis for the modern education of Indian children in a wide study of the work he is now offering to his colleagues of the teaching profession and to the reading public generally.

Training College,
Dacca
29th August, 1916.

Evan E. Biss.



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EDUCATION IN ANÇIÉNT INDIA.

T

INTRODUCTION: FACTORS IN EDUCATION.

The nature of the education of an individual is determined not only by his inherited powers and capacity but also in a great measure by the environment in which he grows up. Hence in determining the nature of the education of the Aryans in Ancient India we shall have to consider, on the one hand, the original nature of the people who first entered it and on the other, he nature of the country in which their crited capacities were called into active elopment.

Effect of Environment:—The Aryans of first entered India were remarkable for

their manly virtues and strength of intellect. The Vedic Rishis not only composed hymns. and performed sacrifices but fought their wars and ploughed their fields. Their, martial spirit was for a long time kept alive by the necessity of holding their own against the enemy. When this had been effected and resistance was broken, there was left very dittle scope for the development of the manly virtues. The mild climate and fertile soil of the country bringing the means of subsistence within easy reach made the struggle for existence in India an 'easy' one. ' Besides, the lofty mountains and the seas. shutting the country off for a long time from outside influences gave the Hindu culture a unique character. Thus while in Europe long cold winters, barren soil and conflict of interests between small.countries have, developed in the Aryans there 'the instinct of self-preservations to the highest pitch and made them comparatively more? 'active,' c'combative' and enterprising, the pecaliar environmental conditions of India have tended to make here people more,

passive, 'meditative' and 'philosophical', Besides, the fusion of the Aryan element with the pre-Aryan population in the .two continents has brought about changes in the original nature of the Aryan people. Hence owing to differences in the conditions of the countries the people in the two continents, though they originally belonged to the same stock and postessed similar virtues, now present such marked distinctions in the development of the human character. The different conditions of the two continents have thus not only affected the nature of the people but have influenced their sciences, arts and literature as well; and hence while in Europe the various sciences and arts have been developed, more or less, to meet the material needs of the people and to enable them to hold their own in their political and economic relations, in India they had had their origin in the "exigencies of religion."

References:—1. Max Muller—India, What can it touch us?

2. A. A. Macdonell—A History of Sankrit
Literature.

THE DIFFERENT PERIODS AND THEIR GENERAL CHARACTERISTICS.

The history of India, like the history of Europe, broadly divides itself into three parts,—Ancient, Mediæval and Modern History. Ancient History begins from about B. C. 2000 and extends to about the middle of the seventh century A. D. Mediæval History embraces the period lying between the fall of the kingdom of Harsha (647 A.D.) and the rise of the British power in India which took place somewhere about the middle of the eighteenth century. The modern period commences with the close of the mediæval period and extends to the 'present time.

in the Ancient Period:—Here two main epochs can be distinguished in the history of ancient Indian literature; the one extending from 2000 B. c. to 200 B. c.; the

ficial and so elevating as that of the Upanishads. It has been the solace of my life—it will be the solace of my death."

Transition Period: In the third century B. C. when Buddhism was the principal religion in India, the Vedic language had dwindled down to Prákrit as may be seen from the inscriptions of Asoka. However, the different arts and sciences received considerable development in this epoch. 'The curriculum of the University of 'Taxila, which was then in its most flourishing condition, throws some light on the nature of the various subjects current among men of the time. It is said that as many as sixteen branches of learning were taught in the different Schools in the University. Medicine was especially cultivated in Taxila and in the University there were Schools of Painting, Sculpture, Image-making and Handicrufts. Astronomy also received the greatest attention of the. people of the time. Ujjain was then famous as the seat of the study of astronomy. Veterinary Science was actively cultivated

in the time of Asoka and there were animal hospitals in different parts of the country.

The Second Epoch of the Ancient Period begins with the time of the Sungas (185 B. C.) when the Brahmanical reaction set in. During this period the vedic language became gradually modified into 'classical' Sanskrit and those who wrote Sanskrit works had themselves to learn the language as we do now. This epoch was a time of exceptional intellectual activity in the different fields of literature and science. . It embraced, in general, secular subjects and 'achieved distinction in different branches of literature, in national as well as court epic, in lyric and especially didactic' poetry, in the drama, in fairy tales, fables and romances'. The great Kālidāsa whose works have made him immortal in the history of Indian literature lived in this age. The mathematical and astronomical sciences

[&]quot;The animal hospitals, which still exist at Ahmadābād Surat, and many other towns in Western India, may be regarded as either survivals or copies of the institutions founded by the Maurya monarch"—V. A. Smith—Early History of India (3ru Ed.)—P. 183.

received the highest development in the hands of Aryabhatta (born A. D. 476) and Varāhamihira (died A. D. 587). Architecture, sculpture, and painting also were cultivated with great avidity and attained considerable perfection. Music was also encouraged. The Guptas (a. D. 320-455) and the Great Siladitya (Harsha - A. D. 606-647) who flourished in this epoch were great patrons of learning. Under the liberal patronage of the latter the great university of Nalanda in Behar rose to the most flourishing condition. Hiuen Tsang, the Chinese pilgrim, says that 10,000 students resided here and received gratis education in the various 'sciences, viz., Grammar, Rhetoric, Logic, Arithmetic, Geometry, Astronomy and Music. Medicine, Philosophy and the Sanskrit and Pali prose and poetical, literature were also studied, here. In fact, the literary and scientific subjects reached such a high degree of development that, says, Dr. Macdonell, in some of the subjects, viz., the various scientific literature, phonetics,' grammar, mathemátics, astronomy, medicine

and law, in which the Indians achieved notable results, their attainment was far in advance of what was accomplished by the Greeks. The nine gems connected with the name of Vikramaditya also flourished in this epoch which may fairly be compared with the Periclean age of Athens or the Augustan age of Rome, or, as Vincent. Smith says, with the Elizabethan or the Stuart Period in England.

The ancient period not only saw the highest development in the field of Indian literature and science but it was a period of national life and national vigour in overy sphere of activity, and its civilisation was free from the artificial restrictions of modern Hindy society. It was a period when the sacred learning had not become the monopoly of the priests and when all the Aryanswere united as one caste and still entitled to the religious and literary heritage of the Aryans. Professions and trades other than that of the priests were not looked upon with disfavour; nor the vocations requiring manual exertion. The arts were, not then

a specialized study divorced from 'religion and the men' whose genius created them were not of an inferior calibre to the poets and philosophers.

Besides, in several points the Hindu society of the time showed a wonderful resemblance to the modern institutions of the rest of the civilized world:

(i) Early marriage of girls:—The early marriage of girls was then rare. The Svay-

ambara, ceremony so much talked of in the Hindu Epics and literature shows clearly that the custom of giving away girls in marriage early is of later development. It also shows that girls, in ancient India as in modern Western society, had some voice in the selection of their husbands. Examples of marriage taking place after puberty are

said at the very outset that the absolute seclusion of women was unknown in ancient India. Neither the Rig Veda nor the Epics furnish us with any example of this custom. The following sloka quoted from Lalita Vis-

(ii) Seclusion of women:—It must be

also furnished by our Sanskrit literature.

tara shows that though covering the face with a veil was probably the usual custom, it was not strictly followed, for otherwise Gopa, the pious wife of Buddha, could not have protested against the practice:

"Rishis, noble-minded persons, those who can divine the secrets in the hearts of others, the assemblage of gods, know well my motives. So long as my behaviour, my qualities, my prudence remain undisturbed, what need is there for me to cover my face with a veil?"

Our Sanskrit literature and history also support the view that the absolute seclusion and restraint of women were not Hindu customs. In fact, the practice was unknown in India till the advent of the Muhammadans, when partly in self-defence, partly in imitation of their masters, the upper classes of the Hindu society began to seclude their

[े] जानित श्रायय मम ऋषयो नहाता।
परित्तत्र हितु श्राति देव प्रहा: १
यय मद्य शील गुण सन्दर श्रप्रमादी
वदनावगुष्टनमत: प्रकरामि कि मे ॥
2 Lalita Vatara XII. B. 182.

women. That this was so is clearly proved by the complete absence of the custom in Maharastra where the rule of the Moslems was brief

(iii) Social position of women and their education:—Women generally had a very high social position: Considered as the inseparable partners of their husbands, Hindu wives always received the honour and respect due to their position. In fact, among no other ancient nation on the face of the globe, as says Mr. Dutt, were they more honoured than in India.

As to the learning of women we cherish the picture of the cultured lady Visvarara who composed hymns which have been handed down to us through thousands of years. The celebrated conversation between Vajnavalkya and his learned wife Maitreyi on the eve of his retirement to the forest indicates clearly that women were then 'considered as the intellectual companions of their husbands'. Weber also supports the view by saying that women in ancient. India took an

active part in the very stirring intellectual life of the period and plurged with enthusiastic ardour into the mysteries of speculation, impressing and astonishing men by the depth and loftiness of their opinions. Besides, the following lines quoted from Lalita Vistara show clearly that girls even at the time of Buddha were taught to read and write and became accomplished in several ways:

Gautama says, "I shall need the maiden who is accomplished in writing and in composing poetry, who is endowed with good qualities" and "well-versed in the rules of the Sāstras".2

In fact, in Vatsayana's Kama Sutras we find a list of 64 arts which were appropriate for young ladies. Sanskrit literature and the history of the later period also support the view that the girls in ancient India received proper education. Lastly, we find the great Vedantist Sankaracharya who flourished in the beginning of the 9th century A. D.

Weber—The History of Indian Literature p. 22.
 Lalita Vistara (Edited by R. L. Mitra)—XH pp. 199-200.
 Ibid pp. 186-189. Also see Appendix.

preparing himself with all the care to angue with Svarasvati, the learned wife of pandit Madana. All these prove conclusively that in ancient India there was no dearth of education among women in cultured societies.

(iv) Idol-worship: The worship of idols had not at that time been introduced. The practice came into existence later in the Puranic period (A. D. 300-A. D. 1000) when in the absence of high ideals people found the necessity of its introduction. Even so its introduction indicates that the Hindus even then realised that education in the religious sphere should proceed from the concrete to the abstract. It is interesting to record here what Abul Fazl, the author of Aycen Akbari writes on the point: "They (the Hindus), one and all, believe in the unity of the God-head; and although they hold images in high veneration, yet they are by no means idolators, as the ignorant suppose. * * * the images are only representations of celestial beings, to whom they turn, themselves whilst at prayer, to prevent their thoughts from wandering."

found that the Ancient Period came to a close with the fall of the kingdom of Harsha (647 A.D.). This marks the beginning of the medieval period which, as we have seen, extends to the middle of the 18th century. This period ushered in all the characteristics which now mark off Hindu society from the modern institutions of the rest-of the civilized world. The chief of these were (i) the rigid caste system, (ii) idol worship, (iii) the early marriage of girls, (iv) seclusion of women and (v) want of literacy among women.

The Mediæval Period, like the Ancient Period, also divides itself into two epochs: the first extends from A.D. 647 to 1200, while the second embraces the rest of the period.

After Harsha there remained no supreme authority in northern India to restrain the disruptive forces which were ready to operate there. Consequently the different states assumed independence and became engaged in unceasing internecine war. Learning, however, did not sink to a low ebb. Yasovarman

who reigned in Kanouj in the 8th century A.D. encouraged Sanskrit learning. He was the patron of Bhavabhuti, the famous author of Malati Madhava. This together with the story that five Brahmins were sent from Kanouj to Bengal to revive orthodox Hindu customs there, shows that Kanouj was a centre of Brahmanical learning. Again, the great Vedantist scholar Sankaracharya (9th century A. D.) is said to have studied at Benares. Further, the Ghoserabau inscription states that one Biradev after having completed the study of all the different Vedas repaired (in the 9th century A. D) to Kanishka Mahavihara in the neighbourhood of Peshwar for further study. It thus appears that Kanouj, Benares and Peshwar were the seats of learning in those days. But for four centuries (9th to 12th century A.D.) the principal seat of learning was in Behar where, besides the Nalanda University which did not disappear even then, arose or the Ganges the famous monastery, of Vikramasila. This was founded

See Garalekhamālā or the Inscriptions of Gaur.

Dharmapala and is said to have included 107 temples and six colleges. This monastery was the centre of Tantric Buddhism and disappeared with the advent of the Muhammadans in A.D. 1200. Navadwip in Bengal became a seat of Hindu learning under the Sen kings of Bengal. Jayadeva, the famous author of the Gitagovinda, seems to have been the court-poet of Lakshmana Sena, the last king of Bengal. Navadwip, however, survived the shock of Mahammadan attack and is still renowned as the principal seat of Hindu learning organised after the ancient manner. Also, from a reference to Ayeen-Akbari, it appears that Benares was a famous seat of Hindu learning even in the 16th century.1

Thus it appears that the torch of learning was kept burning in the middle ages in the various parts of India. But, says V. A. Smith, 'literature although actively. cultivated and liberally patronised at many local courts, sank far below the level attained by Kalidasa.' This epoch was, however.

⁴ Ayeen Akbari translated by F. Gladwin-p. 560.

remarkable for the productions of a few notable commentaries: Kumārila (about A.D. 700) wrote a commentary on the Karma Mīmāmsā Sūtras of Jaimini. The great Hindu reformer Sankara who gave the Vedanta philosophy its final form, wrote his brilliant commentaries on the Vedanta Sūtras and the Bhāgavatgitā. Another commentary on the Vedanta Sutras was written by Ramanuja (about A.D. 1100). The cultivation of sciences, however, did not cease. Mathematics seems to have been actively cultivated, as we find the great Indian astronomer and mathematician Bhaskara (born 1114) flourishing in this epoch. He wrote several books on Algebra and Astronomy.

The second epoch of the mediaval period (a.D. 1200-1764) marks the rise of the Muhammadans and the fall of the Hindu Kingdoms in northern India. The religious zeal of the Muhammadans made them, in general, intolerant towards the Hindus.

The emperor Akbar, however, encouraged Hindu learning and pattonized Hindu scholars. His great-grand son Dara also cok an interest in the religious and philosophical works of the findus.

With the withdrawal of the patronage of the kings and the forfeiture of temple lands, schools, monasteries and priests were left without income. Hence Sanskrit and Hindu learning made very little progress in northern India for a very long time. This period therefore, was a striking contrast to the ancient period. But as the ancient period saw the highest development in Sanskrit literature, this epoch was remarkable for the highest distinction it attained in Vernacular literature in the different parts of India. 'Vidyapati wrote many beautiful lyries in the dialect of Behar; Chandidas wrote similar works in Bengali; and in Rajputana, Mirā Bāi, a princess, wrote beautiful song's which were extremely popular.'

The achievements of the Hindus in the, field of literature in the Middle ages thus compare very unfavourably indeed with what their ancestors had attained in this field in the past ages, but they far outshope them in point of the perfection they reached in sculpture and architecture. This is borne

Also see V. A. Smith-Early History of India (3rd Edigion p. 358.)

out by the following quotation from Havell's The Ideals of Indian Art (p. 132).

"The art of India up to the fourth century A.D. was purely eclectic and transitional. The spirit of Indian thought was struggling to find definite artistic expression in sculpture and in painting, but the form of expression was not artistically perfected until about the seventh or eighth centuries, when most of the great sculpture and painting of India was produced. seventh or eighth to the fourteenth century was the great period of Indian Art, corresponding to the highest development of Gothic, Art in Europe, and it is by the achievements of this epoch, rather than by those of Mogul Hindustan, that India's place in the art-history of the world will eventually be resolved."

The different arts, says the same authofity, continued to be cultivated in India with much vigour till the 17th century when Lurangzeb expelled all the Hindu artists and craftsmen whom his father and grandfather had the good-will to attract to the service of the state; consequently, 'the art of the Moguls in India was struck with a blight from which it never recovered'.

In the field of religion the mediæval period marks the steady rise of the modern Hinduism to supremacy and the corresponding decline of Buddhism which has gradually become merged in the former. The period also saw the exaltation of the priests and the introduction of the caste-rules in their modern rigid form. This revival of Hinduism was largely due to the influence of the foreign immigrants into Rajputana and the upper Gangetic provinces' who had established their power in northern India during the first epoch of the Middle Ages. These foreigners yielded to the wonderful assimilative power of Hinduism and rapidly. became. Hinduized. Those amongst them who succeeded in winning chieftainship were admitted readily into the frame-work of Hindu polity as Kshatriyas or Rajputs. Like all converts; they espoused Hinduism with exceptional zeal and directed their whole energy to the perpetuation of the

supremacy of the Brahmins who gave them an exalted position in society.

We therefore see that besides the foreign domination which characterized this period, priestly monopoly in its closest form was the prominent feature which marked it off from the ancient period. The effect that these two had on the Hindu character was farreaching. The domination of the priests added to that of the Musalman rulers served to make the Hindus generally docile, gentle, peaceable, and less ambitious and enterprising. Hence instead of adding much to their heritage the Hindus lost most of what had been transmitted to them. The Hindu civilisation during the period was therefore not very progressive and education, to a great extent, became a more or less formal Recapitulation of the Past.

3. The Modern Period:—This period inaugurates an age of regeneration. Thanks to the patient researches of the European and Oriental Scholars who have not only cleared up the mists making later researches possible but have created in the people of

India an intense desire to know her ancient civilisation. Besides, under the vivifying influences of modern civilisation and the fostering care of the British Crown the new India is not only becoming conscious of her national life but is trying to revive all that was best in ancient India. The present age may, therefore, be called the age of Renaissance of Hindu Education. The following extract from Indian Educational Policy (1913) shows clearly that the retention and furtherance rather than the suppression of the ancient and indigenous systems of instruction marks the present policy of the British Government.

"The Government of India attach great importance to the cultivation and improvement of oriental studies. There is increasing interest throughout India in her ancient civilisation, and it is necessary to investigate that civilisation with the help of the medium of western methods of research and in relation to modern ideas. * * * While making provision for scholarship on modern lines, the conference drew attention to the

necessity of retaining separately the ancient and indigenous systems of instruction. 'The world of scholarship, they thought, would suffer irreparable loss if the old type of pandit and maulvi were to die out before their profound knowledge of their subjects had been made available to the world; and encouragement rather than reform needed to prevent such an unfortunate result. * * * The Government of India hope to see the adoption of measures that are practicable for the maintenance and furtherance of the ancient indigenous systems of learning."

Reference: -1. A. A Macdonell-A History of Sanskrit Literature.

- c2. A. Weber-The History of Indian Literature.
- 3. R C. Dutta-Civilisation in Ancient India.
- 4. E B. Havell The Ideals di, Indian Art.
- 5. V. A. Smith-Early History of India.
- 6. Max Muller-The Laws of Manu.
- 7. Elphinstone-History of India.
- 8. R. L. Hitra-Lalita Vistara.
- 9. Indian Educational Policy, 1913.

THE CASTE SYSTEM. AND ITS PEDAGOGICAL SIGNIFICANCE.

In the vedic times when the Aryans were itill in the Sutlej valley the Rishis did not orm a separate and exclusive class. Each Rishi was a priest, a warrior and a cultirator and society was therefore then marked by the absence of those rules and restrictions which form the distinctive feature of the present complex Hindu society. But even then some families obtained pre-eminence by heir special knowledge of the ways of performing religious sacrifices and their gift of composing hymns; others again excelled in military prowess. In course of time the Aryans crossed the Sutlej and moved down the valley of the Ganges, While they were settling down here society was becoming complex and their culture material in its lifferent phase's began to show considerable

development. In fact, the religious ceremonials which represented one of the phases of their culture, attained such complexity that certain Rishis had to devote more or less exclusively all their time and energies to the efficient carrying out of religious duties and the handing down of the sacred tradition in their families. So to keep pace with the growing needs and complexity of society differentiation became a necessity. Hence the Indo-aryans like Plato, made an intelligent application of the principle of the division of clabour and became gradually divided into four classes or castes according to their occupation and innate qualities as appears from the sloka quoted below: "चातुर्व्वेखें संया सृष्टं गुणकर्माविभागशः" (Gita IV sl. 13) or "the four fold division of castes was created by me according to the apportionment of qualities and duties."

According to the Hindu philosophers prakriti (प्रजात) which determines the temperament of an individual is made up of three constituent principles or gunas viz., goodness or purity (सन्त Sattva), passion or

daughter of a Brāhmin, a Kshatriya, a Vaisya or a Sudra; for my son (Gautama) is not particular about family or lineage; his mind delights in merit, in truth, and in virtue". Lalita Vistara Chap XII.

"ऋह्धानंः ग्रभां विद्यामाददीतावरादपि।

अन्तादिष परं धर्मा स्तीरतं दुष्तुलादिष ॥' or "one should acquire with faith good knowledge even from an inferior person, learn excellent virtues even from one of the lowest caste and receive a gem of a woman even from a low family." Manu II. 238.

Besides, the members of the warrior and industrial classes had access to the literary schools kept by the members of the higher class. Nay, many Kshatriyas like Janaka, Jaibali and Ajatasatrul were so versed in the sastras that the Brahmins often went to them to receive instruction in the Divine wisdom (ARTI). But owing to the difficulties of the Vedic literature the Kshatriyas, in general, did never avail themselves of these privileges to any great extent, so

Upanighad by Hirendra Nath Dutta pp. 58-79.

that, the charge often brought against the Brabmins as having withheld their sacred literature from any but their own easte has hardly any foundation. Far from withholding it, the Brahmins had always been striving to make its study obligatory on all the Aryans and as the sloka quoted below from Manu will show, severest penalties were threatened on those who neglected it:

"योऽनधोत्य दिजो वेदानन्यत्र कुरुते त्रमम्।

स जीवनेव शृद्धलमाग्र गच्छित सान्वयः॥"
or "that twice born, who not having studied
the Veda, applies himself to other (and
worldly study) soon falls, even while living,
to the condition of a Sudra and his descendants (after him)." Manu II. 168.

These facts show clearly that in those days learning and good qualities were the passport to the highest honour and to the highest caste though learning without self-control was depreciated as the sloka quoted below will show:

"सावित्रीमात्रसारोऽपि वरं विष्रः सुयन्त्रितः। नायन्त्रितस्त्रिनेदोऽपि सर्व्वाभी सर्व्वविजयी॥" or "a brahmin who knows only Gáyitri, but who is thoroughly self-restrained, is better than he who knows the three Vedas, (but) who is not self-restrained, who eats all (sorts of) food, and sells everything (i.e. prohibited things)". Manu II 118.

Hence the Brahmins who devoted their time and energies to the study of the Vedas, gave religious instruction, presided at sacrifices and were self-controlled, were held in the highest esteem. Again, though the study of the Vedas was enjoined on all Aryans yet as appears from the following sloka the respective occupation of each and the corresponding training were held to have been far more important:

"विप्राणां ज्ञानतो च्येष्ठ' चित्रयाणान्तु वैं। येतः। वैध्यानां धान्यधनतः भूद्राणामेव जन्मतः॥"

or "the seniority of Brāhmins is from (sacred) knowledge, that of Kshatriyas from valour, that of Vaisyas from wealth in grain (and other goods), but that of Sudras alone, from age." Manu II. 155.

The éarly Hindu philosophers impressed

this because like the modern philosophers they, were afraid that the interests of the individual might, otherwise, be absorbed in the interests of the society. Thus in the spirit of the modern educators who hold that one's own method though in itself inferior, is far better than an ideal borrowed, we have in the Gita (xviii. 47):

"त्रेयान् स्वधमों विगुणः परधमीत् सनुष्ठितात्। स्वभावनियतं कमी कुर्व्वन् नाप्नोति किल्लिषम्॥"

or "one's duty, though defective, is better than another's duty well performed. Performing the duty prescribed by nature one does not incur sin."

In fact, it would be absurd if in every other thing as in teaching we were to impose any particular duty or method on any particular individual without any consideration of what really suits his own tastes and ways of doing things; for, without undervaluing the worth of imitation to the student, it may be said that the success of an individual in anything depends mainly upon the intelligence with which he works. "It is,"

says Herbert Spencer, "a trite remark that, having the choicest tools, and unskilled artisan will botch, his work; and bad teachers will fail even with the best methods. Indeed, the goodness of the method becomes in such a case a cause of failure; as, to continue the simile, the perfection of the tool becomes in undisciplined hands a source of imperfection in results."

Again let us see what may happen if an individual belonging to one class follows the vocation of another which may be good in itself but for which he is ill-fitted. First of all, such a man may ruin himself and his family by making such an effort; or if he succeeds only partially, he will become anfit for the duties which belong to his family and at the same time not quite fit to become a recognized member of the society whose calling he has adopted. Thus giving up the duties of his own family or class of which, with his better intelligence, he might be a very useful member, he rot only becomes

Spencer -- Education-7.83.

unfit for either but actually becomes a burden to the family or society to which he belongs. Hence we have in the Gita the warning:

"त्रेयान् स्वधर्माो विगुणः परधर्माात् सनुष्ठितात्।

स्वधमा निधनं श्रोय: परधमारे भयावह:॥"
or "one's own duty, though defective, is better than another's duty well performed.
Death in (performing) one's own duty is preferable; (the performing of the) duty of others is dangerous." III. \$5.

In fact, an individual should not give up the duties of his own class but rather should keep himself in active touch with them and receive himself or give his children such education and training that he or his family and, if possible, his relations may rise to such a position that he or his posterity may easily take to the duties of a better class and continue doing so without causing any inconvenience to himself or his family; for, to satisfy the last condition the individual must have not only sufficient means but certain social and hereditary influences making him fit for carrying on work on the

new lines. Again, though our philosophers warned us to be careful to change our duties for those of a better class yet the Platonic ideal did not remain unrealized and no inseparable barrier was set up between the orders. On the other hand, as the following slokas will show, if a child of the inferior class possessed qualities characteristic of a superior class, he was admitted to that class:

"शृषु यच कुलं तात न स्वाध्यायो न च श्रुतम्। कारणं हि दिजले च वत्तमेव न संग्रयः॥"

or "O honoured Jaksha, hear (me), doubtless the actions alone and not lineage, perusal of sacred books and Vedic learning are the determinants of brahminhood."

Mahábhárata Banaparva Chap. 312 St. 103.

"शूद्रे च् यद्भवित्तच्म दिने तच न विद्यते। न वै शूद्रो भवेच्छूद्रो ब्राह्मणो न च द्राह्मणः॥" "यत्नेतत्तच्यते सर्पे वत्तं स ब्राह्मणः स्मृतः। युवैतन्त भवेष् सर्पे तं शुद्रमिति निर्दिशेत्॥"

or "what is noticed in a Sudra does not exist in a Brahmin. A Sudra is not necessarily a Sudra nor a Brahmin...a Brahmin. O

Snarpa, only he is called a Brahmin, in whom such (characteristics of a Brahmin) actions are found and O Sharpa, where these are lacking one should designate him a Sudra."

Mahábhárata Banaparva—Chap. 180.

"यस यत्तचणं प्रोत्तं पुंसी वर्णाभिव्यञ्जनम्। यदन्वतापि दृश्येत तत् तेनैव विनिर्द्धित्॥" (३५)

or "if in an individual there appears worth other than that characteristic of his class, he should be designated accordingly."

Srimathbhagbata Canto VII Chap. XI.

All these go to show that in India there was in early times a much freer possibility of change among the social ranks than is usually supposed. This elastic condition of society answered to the flexibility of a democratic curriculum which the present Western world is so very anxious to provide to secure the efficiency of citizens. Hence society, in ancient India was an organic whole, the castes representing but the different phases of its culture.

All that has been stated above proves

conclusively that agreeing with the tendency of the modern world there was in ancient India sufficient scope for the development of one's own individuality. In fact, by the system of caste alone was self-realisation made compatible with social service. Thus it may well be said here that even in those early times the Indo-aryans saw that, for social efficiency, the individual should be allowed to develop along the lines of his greatest power. From this there follows the pedagogical principle that it is the function of education to determine the line of the greatest power of each individual and then to prepare him for service in that direction. This is the formulation of the ancient Indian ideal of a liberal education.

In fact, in ancient times the greatest care used to be taken to discover the aptitude and fitness (अधिकार) of an individual to receive any particular kind of education. The teachers then thoroughly realized that

^{1.} Lectures on Hindu Philosophy (2nd year) by Mahama hapadhaya Chandra Kanta Tarkalankara—pp. 245 and 248.

^{2.} Also see Srimat Jhagbat—Canto VII. Chap. XII. 13.

Also Cp. The Religions of India by Rev. Allan Menzies—p. 46.

यमेव तु शुचिं विद्या नियतं ब्रह्मचारिणम्। तस्मे मां ब्रूह्मि विप्राय निधिप्रायाप्रमादिने ॥

"But impart me to that Brahmin who guards his treasure, is never careless, and whom you may know to be a pure and self-restrained student observing the vow of celibacy." Manu II. 115.

पिद्ययेव समं कामं मर्त्तव्यं ब्रह्मवादिना। श्रापद्यपि हि घोरायां नत्वेनामिरिणे वपेत्॥

or "Even in time's of dire distress a teacher of the Veda should rather die with his knowledge than sow it in a barren soil." Manu II. 113.

Further, the fact that the different sons of Pandu were made to specialize in the different branches of arts and sciences also bears out the view just upheld. Again, the method adopted by Vishnu Sarma who had

liking for rearing pigeons. So he told the princes that thenceforth they would do nothing but fly pigeons, feed them and
look after them in the pigeon house. The princes were naturally
very glad. As the number of pigeons increased they had?

name and count them. Vishnu Sarma was clever enough to
put peculiar red marks on the wings of the pigeons and called
them Taug. 4, etc., (1, 2, 3 etc.) The princes thus learned the

the charge of the ignorant and vicious sons of king Sudarsana of Pataliputra (Patan), also shows that the modern principle of suiting matter and method to the nature and needs of the child was not unknown in ancient India. Lastly the sloka quoted below clearly establishes the fact that in prescribing method our philosophers, like the educators of the present century, used to take into consideration the capacity and fitness (अधिकार) of the 'educand':

"ग्रारुरचोर्मा निर्योगं कर्मा कारणमुचिते। योगारुदस्य तस्यैव शमः कारणमुचेते॥"

Gita VI. 3.

or "to the sage who wishes to rise to devotion action (without attachment) is said to be

letters of the alphabet and to join the letters into syllables and syllables into words. The foundation of a knowledge of Arithmetic was laid in counting the pigeons, in telling how many there were in two or three adjoining cots, how many remained in the cots after so many were on the wing. By this strange method were taught not only notation, numeration, addition, subtraction etc. but also something of engineering and housebuilding and drawing which were required in planning and constructing the dove cots. Not only this, but even ethics and politics were taught in this fashion, as the tales of Psychatantra and Hispodeta testify to this day.

the means and to him, when he has risen to devotion serenity is said to be the means."

Indeed, it is a bad policy to spend time and energy in making an indifferent priest out of a citizen who could have become an excellent soldier. Hence the fact that the study of sacred literature was withheld from the Sudras does not go to show the 'narrowmindedness of the Brahmins but argues that even in those early days, they got an insight into one of the most important modern pedagogical principles. The Sudras were, in general, denied the study of the Vedas only because they had neither any tradition nor aptitude for acquiring the language and spirit of the Vedic literature. Here it may be said that this was not the distinctive feature of the early Hindus alone; even worse features could be traced, in the Greek system. According to Aristotle 'slaves and artisans cannot attain to citizenship and hence not to the good life, since it, is not possible to care for the things of virtue while living the life of the artisan or the slave." Plato's system calso was none

the less aristocratic in this respect. He held that the philosophers only should be the rulers, for a philosopher was he who knew the highest good and 'this longing for the supreme good' was, according to him, to be found only in a few.

Again, in ancient India the struggle for existence was not at all keen and there was very little social and economic pressure. So the people were more or less free from anxiety as to the immediate future. Pesides, an individual in any class had his place, purpose and value in regard to the society so assured that he did not at all feel the necessity of changing his own vocation.1 As a natural consequence through racial habit the occupation of each class became to a great extent hereditary. Hence the Brahmins who devoted their time and energies to the study of the Vedas and the sciences originating therefrom and to the acquisition of a knowledge of sacrificial rites, gradually acquired a practical monopoly of higher learning. It is urged now that

Industrial Arts of India by Sir George Birdwood.

this has led, to the rigidity of the existing caste system, which for a long time to come is likely to be the curse of India." But for this the Brahmins are not much to blame. For, besides the causes mentioned above, the peculiar isolated and fortified position of the country shutting out for a long time all outside influences tended to make the vocations hereditary. These, therefore, were more or less responsible for the loss of elasticity which existed in ancient India and which is so urgently needed under the political and economic condition of modern India. In fact, until late the Brahmins did never place 'so strict an interpretation' upon the caste system, for though the causes mentioned above tended to make men forget; the true spirit of the caste system and to produce rigidity in it, there always existed strong reactionary forces to stop the tendency; the highest culmination of these latter forces was manifested in Buddhism. The efforts of Nanak, Kabir and Chaitanya against the rigidity of the caste system in the mediæval period also bear this out. "In fact, it was

only when the Aryans came under foreign influences that hygienic considerations and the fear of spiritual contamination through suggestion as well as the desire to preserve the purity of their blood led the Brahmins to make the caste rules strict.

Though the easte system in its present form has many defects it serves at least one function. As a fence protects, the growing tender plant, so it protects the growing child of the individual society from being affected by alienating influences.* Indeed, "the caste system is a splendid organisation. Its wonderful persistence is the proof of it." It saved society once though its life is now fled, having lost its true significance with respect to guna and karma. Even now it checks revolution in the Hindu society which by its wonderful power of assimilation gradually adapts itself to the new situations without losing its individuality.

A Thus says R. C. Datts, "However rimb, therefore the historian of Ancient India may deplore the commencement of the caste system, he should never forget that the nore regulas of that system were unknown in India until after the Mahorimodan collegest."—Civilisation in America Profession—Vol. 1, p. 156.

It must be stated here that the caste system in its natural form exists more or less everywhere in the world. The distinction that is made between the different ranks of society sufficiently illustrates this.¹

Lastly, it is interesting to note the strange parallelism that existed between the caste system of India and the mediaval European institutions. The clergy, the knighthood and the people of Europe in the Middle ages answered in some respects to the Brahmins, the Kshatriyas and the Vaisyas of India. Learning in Europe, as in India, for a long time flourished under the fostering .care of the clergy; and so strong was their hold upon it that during the development of the national system of education, the State has often had to fight hard with the church to secure the full control of the system of education.

Искриим-рр. 151-152.

^{&#}x27;1 Thus writes Sir Monier Williams—"Caste, as a social institution, exists, of course, in all countries, and in England' operates with no slight potency."

- References:—1. Civilisation in Aucient India by R. C. Dutt.
 - 2. The Gita.
 - 3. The Laws of Manu.
 - 4. The Indian Craftsman by A. K. Coomaraswamy.
 - 5. Hinduism by Sir Monier Williams.
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 - 8. The Ideals of Indian Art by E. B. Havell.
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 - 10. Education by Spencer.
 - 11. Buddhist India by Rhys Davis.
 - 12. Lalita Vistara translated by R. L. Mitra.
 - 13 The Evolution of Educational Theory by Adams.
 - 14. Sadler's Report-Education in America.
 - The Religions of India—Rev. Allan Menzies.

monials and supplementing manuals of worship. But in the next stage of development of the religious thought of the Hindus, which may be called the old age of thought some impatience appears to have been felt with the elaborate rites and sacrifices which the thinking men regarded as useless. Hence they began to speculate on the origin of the universe and the nature of the Supreme Being. The thought that was thus set up, ended in the belief that we find incorporated in the teachings of the Upanishad. They show the utter uselessness of all ritual performances and condemn every act which has for its motive a desire or hope of reward and preach that God is the only Universal Being; all things else have their beginning, life and end in Him2; and hence to realise the existence of the Infinite

^{। &#}x27;'कि कारणे ब्रह्म कुतः स्म जाता जीवाम केन क च सम्प्रतिष्ठाः । चिषिष्ठताः केन सुर्धेतरेषु वर्तामहे ब्रह्मविद्यो व्यवस्थाम् ॥" • or "Is Brahman the cause? Whence are we born? Whereby do we live, and whither do we go? O, ye who know Brahman, (tell us) at whose command we abide, whether in pain or in pleasure." Syatasyatana Upanishad I. 1.

[&]quot; 'भर्त्र खिल्द ब्रह्म तज्जनानिति शान उपाधीत !" or "All this universe indeed is Brahms; from Him does it

abandonment. Thus far from encouraging a life of inaction our philosophers emphasised, as the slokas quoted below will show, that the individual in order to be able to give up all desires and thus become fit for the last stage must pass through a stage of active life:

न कर्षाणामनारमानेष्कर्षात्रं पुरुषोऽश्रुते। न च सत्र्यसनादेव सिद्धं समधिगच्छित॥ or "a man does not attain freedom from action merely by abstaining from action, nor does he rise to perfection by mere renunciation (of activity)." Gita III. 4.

नर्भाणैव हि संसिहिसास्थिता जनकादय:। जोनसंग्रहसेवाऽपि संप्रश्नन् कर्नुमईसि॥ or "by action (without attachment) alone did Janaka and the rest attain to perfection; and having an eye also to the protection of the masses (to the duties) thou shouldst perform action." Gita 111 20.

न में पार्थाऽस्ति कैर्त्तव्यं तिषु लोकेषु किञ्चन । नाऽनवासमवासव्यं वर्त्त एव च कैर्मणि ॥ Gita III. 22.

[े] दुःखिमित्वे व यत् कर्म कायक्षे श्र मधाकृतिन्। स क्रवा राजसं त्यागं नैव त्यागम्बस् क्षमेत ॥ Gita XVIII. 8.

यदि म्लाइं न वृत्तीय जातु कम्मेखतिन्द्रतः । सम वर्त्तार्रनुवर्त्तन्ते सनुष्याः पार्थं सर्व्वगः ॥ ' Gita III. 23.

or "there is nothing, O son of Prithi! for me to do in (all) the three worlds, nothing to acquire which has not been acquired. Still I do engage in action, for should I at any time not engage without sloth in action, men would follow in my path from all sides."

श्रारक्चोर्म्युनेर्योग' कर्मा कारणमुच्यते । योगारुद्धस्य तस्यैव शमः कारणमुच्यते ॥ Gita VI. 3.

or "to the sage who wishes to rise to devotion action (without attachment) is said to be the means, and to him, when he has risen to devotion, serenity is said to be the means." Besides, it is said that in the early stages it is impossible for an individual to remain

inactive, as "nobody ever remains even for an instant without, performing some action; for helplessly is every one driven to action by the energies (gunas) born of nature (Prakriti)." Gita VI. 3.

In the above slokas we find an emphasis

on doing actions for their own sake abandoning 'attachment' and hence 'fruit.' Such actions are characterized not only by selfcontrol but by love and sacrifice for beings. Hence according to the Hindu philosophers cessation of one's own desires is the last stage in the process of development which can be attained by the identification of one's own will and interests with the life around one ic., by love and sacrifice for beings and not by separation from them. It appears, therefore, that the Hindus thoroughly understood that self-realisation of the individual depends entirely on self-expression and on the assimilation of the spiritual forces that are about him.

*With the Hindu philosophers all souls were originally pure; but they have become contracted by their own acts. Hence by doing good deeds and through the mercy of God they will expand and become free: The Hindus, therefore, like the modern educators, saw that complete self-realisation was possible only through finding one's own relations to the world around one and thus

realising that all things have their beginning, life and end in God. c So according to them the final emancipation was possible only through an active and harmonious 'life, i.e. "from communion with one's fellow men and with the beauty and truth of the universe."

From what has been said above it follows that the stage of final emancipation presupposes a stage of self-active and self-controlled life of action. Now since the individual is born with good as well as bad impulses, the second-stage should be preceded by a stage in which the individual should go through a training enabling him to discharge successfully the duties of a householder in manhood. Hence, though the first and second phases of Hindu religious thought were antagonistic to the teachings of the Upanishad, the early Hindus did not reject them. On the other hand, they made it a general rule that to attain the last stage the individual must pass through the other two, each stage preparing for the next higher. Accordingly, it has been laid down that "let a man become a householder after he

has completed the studentship, let him be a dweller in the forest after he has been a householder and let him wander away after he has been a dweller in the forest" (Jabala Upanishad, 4). Similar ideas also occur in Manu:

"He who after passing from order to order, after offering sacrifices and subduing his senses, becomes an ascetic being tired with (giving) alms and offerings of food, gains bliss after death." • VI. 34.

Also, "when he has paid the three debts, let him apply his mind to (the attainment of) final liberation; he who seeks it without having paid (his debts) sinks downwards." VI. 35.

The Hindus from a very early time have held that each man is born a debtor: that he has obligations first to the sages who were the founders and fathers of his religion: secondly, to the gods: thirdly, to his parents. The first debt he repays as a student by a careful study of the vedas. The second he repays

^{1 &}quot;ब्रह्मचारी मृत्या गरही भवेत्, गरही मृत्वा वनी, भवेत्, वनी भृता अवजेत"।

as a householder through the performance of, a number of sacrifices. The third debt he repays by offerings to the Manes and by becoming himself the father of children. When a man has thus paid all the three debts he is considered free and becomes fit for applying himself to the attainment of final liberation.1 What the early Hindus meant was that one should not anticipate the freedom of the third stage i. e. of the forest life without having fulfilled the duties of the student and the householder. They were afraid that if the desires remained unsatisfied and uncontrolled, the mind might ' become contaminated. In fact, they say, "the hermitage is not the cause of virtue; the virtue arises only when practised".2

This principle corresponds to the modern theory which makes the child responsible to the society in which he lives. The reasons it puts forward are:—(1) The modern child is what he is potentially because of the culture of his ancestors, and (2) he realizes his own nature in and through the society in which he is brought up. Hence the individual, as he receives freely from the society must add to it something for its conservation and progress.

² Laws of Yajnavalka III, 65. Herein the Hindus anticipated Aristotle who holds, 'Virtue does not consist in the knowledge of the good, but in the functioning of the knowledge'.

Similar sentiments occur in the Mahábhárata

"O Bharata, what need has a self-controlled man of the forest, and what use is the forest to an uncontrolled man? Wherever a self-controlled man dwells, that is a forest, that is an hermitage" (Santiparva):

In fact, what, according to the early Hindus, was required was to realise one's identity with the Self in the universe not only intellectually, but practically. So the Hindus have laid down that the individual should first go through a training and then through a life of trials and action. Here by overcoming passions and desires and becoming pure in mind and body, the individual should prepare himself for the forest life where perfect freedom and eternal, bliss reign:

The early Hindus, therefore, considered education as a life process and different duties were assigned to each stage in such a way that their due performance in any stage might prepare the individual for the next higher. In order to prepare him for dis-

in which was found the explanation of the origin and the meaning of existence. Hence with the "early Hindu philosophers as with Froebel "the purpose" of education was toexpand the life of the individual until it should comprehend this existence through participation in the all-pervading spiritual. activity." Hence we have in the Gita (III. 26), " Let no wise man unsettle the mind of ignorant people attached to action " i.e. the Gita forbids the wise to thrust on the individual the divine wisdom before he becomes fit for receiving it. It urges that the individual should perform action so that he may learn by doing the true nature of his own self. This goes to show that the Hindu system was not in favour of dogmatic instruction and aimed at the development of the personality of the individual.

The ideal of the Hindus, as has been stated before, is to find out the relation of the individual, self to God, as this is "the

Also Chhandogya Upanishad—Satyakama Jabala.

only way in which we can conceive the satisfaction of human aspirations, the completion of human knowledge, the sanctification of human life." In fact, to know oneself in relation to society and the universe was the problem of the Hindu educational theorists. . This implies and necessitates the fullest development of personality. The complete realisation of this ideal was, as we have seen, possible to the individual in the third stage of life only when he reached it after having conscientiously fulfilled the duties of the student and householder. In this stage, according to the Hindus, the individual becomes free from all fetters of law, of custom and of tradition and enjoys a life of perfect spiritual freedom and eternal bliss.1

We thus see that the Hindu System aims at the perfect freedom of the individual rather than at his suppression. Now, it is clear that the Hindu philosophers instead of giving an 'expression to the hostility to individuality' as has been suggested by some

¹ Max Muller-Lectures on the origin of Religion p. 365.

writers1 aim at a greater development of individuality. In fact, instead of suppressing their individuality, "they attain their real individuality, infinitely beyond these little selves which we now think of so much importance." No individuality will be lost; an infinite and eternal individuality will be realized. Pleasure in little things will cease. We are finding pleasure in this little body, in this little individuality, but how much greater the pleasure will be when this ' whole universe appears as our own body! . If there be pleasure in these separate bodies, how much more when all bodies are one? The man who has realized this, has attained to freedom, has gone beyond the dream and known himself in his real nature." 'So not only does identity with God which demands the cessation of all selfish interests and motives 'not imply the loss of individuality but it is the only means by which individuality can be conserved and developed.

Monroe—A Brief Course in the History of Education, p. 21.

2 Swami Vivekar anda—The Science and Philosophy of Religion pp. 183-89.

From what has been said above it appears that the ideal of the Hindus was not a life of inaction and contemplation but the attainment of divine wisdom through a self-controlled and self-active life of action. Hence the Hindu ideal, like that of the Greeks of old, included the two-fold ideal of the man of action and the man of wisdom.' This is seen also from the slokes quoted below.

"श्रन्धं तमः प्रविशन्ति वैऽविद्यामुपासते ।

ततो भूय दव ते तमो य उ विद्यायां रता: ॥"
or "all who worship what is not real knowledge (i. e. work only) enter into blind darkness; those who delight in real knowledge (i.e. without work) enter, as it were, into greater darkness." Isopanishad, 9.

"विद्याचाविद्याच यस्तदेरोभयं सह।

श्रविद्यया ऋत्यं तोर्का विद्ययास्तमश्रुते॥"

"but he who knows at the sametime both knowledge and not-knowledge (i.e. action), overcomes death through not-knowledge and obtains immortality through knowledge."

Ibid 11.

It is interesting to note how an employed has been laid here on the combination of knowledge with action and on the corresponding pedagogical principle that no real abstraction is possible unless in and through the concrete experiences.

Lastly, it may be noted that though the old religious ideas have, later on, given place to a complicated system of polytheistic doctrines, the teaching underlying all of their is still expressed in the formula elam eva advitiyam (one only without a second).

PEDAGOGICAL ASPECTS OF RELIGION.

It may be noted here that from what has been said before, may be inferred a few pedagogical principles of no mean value. By prescribing that the individual must pass through the different stages or asymmetric the Hindus hold that every individual will have to take the steps which their angestors have taken to come to the highest pinnade of religious thought. This corresponds along

to what is called the Parallelism between the Individual and the Race Development. Again, as we have seen, the Hindus have assigned to each asrama the culture material of the corresponding stage of development of their ancestors. This principle sounds like the modern Culture Epochs Theory which demands that the arrangement of the matter of instruction must be determined by the historical stages of human culture as well as by the stages of development of the *race. Again, by holding that only by active participation was one able to attain selfrealisation they anticipated another important pedagogical principle viz. Learn by doing. Thirdly, the Hindus have held that duties must be done for their own sake without any hope of a reward in this or future life.1 Now the activities that are pursued for their own sake become the 'self-active representation of the inner-

चर्यमिये व यन् कसं नियतं क्रियतेऽर्ज्जून ।

सङ्घ वक्षा फरं चैव सन्दीगः सास्तिको सतः ॥ Gita xviii. 9.
o? "when prescribed action is performed, O Aryuna! abandoning attachment and fruit also, morely because it ought to be performed, that is deemed to be a great abandonment."

representation of the inner from inner necessity and impulse.' In fact, the training the Hindu boy received during his pupilage was intended to develop in him such an attitude of mind and habit that he might perform self-actively, successfully and easily the duties of manhood in the second stage, of life. Thus from the emphasis laid by the Hindus on doing one's duty for its own sake emerges the principle that one's action must' always be self-initiated. Hence it appears that the early Hindus had, like Froebel, for their motto self-control and selfactivity. Lastly in holding that each stage of life was preparatory to the next higher one, the Hindus had given expression to the principle of continuity that is so much emphasised by the modern educators. Again it will not be out of place here to mention that Kapila, the founder of the Sankhya philosophy first of all propounded the doctrine of evolution which now plays such an important part' in the padagogical world. He says, "there cannot be production of something out "of nothing; that which is

not cannot be developed into that which is. The production of what does not already exist (potentially) is impossible, like a horn on a man." Thus the principal philosophical ideas underlying modern pedagogy are found in the religion and philosophy of the Hindus. And inasmuch as different systems of pedagogy correspond to different systems of philosophy, the history of Hindu pedagogy presents to our enquiry a vast field to be explored.

References :- 1. The Gita.

- 2. The Upanishada.
- 3. The Laws of Manu.
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- 5. Lectures on the origin of Religion-
- 6. Hinduism-Sir Monier Williams.
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- . 8. Vishnu Purana.
 - 9. Education of Man by Froebel.

¹ Sir Monier Williams-Hinduism.

torial system was introduced into England by Andrew Beil.

THE ORIGIN AND DEVELOPMENT OF SECONDARY SCHOOLS AND COLLEGES.

In the earliest times there was no, school to impart education. The head of each family was a rishi who performed sacrifices and composed hymns which he transmitted to his son. But later on, when the religious ceremonials were beginning to increase in complexity and the literal sense of the hymns was becoming foreign to the people, in general, it became necessary to take precautions for securing and establishing their sense. "To attain these objects" says Weber, "those most conversant with the subject were obliged to give instruction to the ignorant, and circles were formed around them of travelling scholars, who made pilgrimages from one teacher to another according as they were attracted by the fame of special learning". Some of the

Weber-The History of Indian Interature p. 21.

centres of learning were established by learned Brahmins who retired to forests in their old age. Besides such institutions, higher schools for the study of religious works and practices were held at the courts of enlightened and learned kings like those of the Videhas, the Kasis, the Kurus and the Panchalas.

The subjects taught in these schools included both secular and spiritual subjects. In the earliest stage both the branches were taught by the Diksha Guru or the boy's spiritual guide. But the office of the tutor, later on, became differentiated into those of the Diksha Guru and Siksha Guru. The former initiated the pupil in the secrets of religion; while the latter took charge of all

i) The different Vedas, Itihasa, Purana, Grammar, the rules for sacrifices for ancestors, the Science of numbers, the Science of portents, the Science of time, logic, ethics, etymology, the Brahma Vidya, the different angas, the Science of weapons, the Science of demons, astronomy, the Science of Serpents or Poisons.

Chhandogya Upanishad (The tale of Narad and Sanat Kumar).

(ii) Vedas with their Angas and Upanishads, archery, various religions, ethics, dialectics, politics and the 64 arts (Sée appendix)—These were attributed to Baladeva and Krishna—Srimat Bhagavata. Also see Vishnu Parana Part III Chap. VI 28-29.

the secular subjects. The sacred laws which also formed a part of the curriculum of these schools included 'not only the precepts for the moral duties of all Aryas but also the special rules regarding the conduct of kings and the administration of justice'.

As long as the various angas1 consisted of short simple treatises there existed only one type of schools called the Vedic Schools. But as the materials for each of these subjects accumulated and the method of their treatment was perfected, the Vedic Schools became differentiated into the Vedic Schools and the Special Schools of Science. members of the former devoted their energy only to get a full and accurate knowledge of the sacred texts but took very little care to understand the subject-matter, so that they became living libraries but without any power to make any real use of their learning while their rivals, though they restricted their learning, to, only a few branches of

These are, Siksha or phonetics, Chiandas or Metre, Vyakarans or Grammar, Nirekts or etymology, Kalpa or religious practices and Jyotish or astronomy.

science, taught their curriculum thoroughly and intelligently. So in time, the Vedic schools ceased to be the centres of intellectual, and were supplanted by the special, schools of science. The curriculum of these schools included the science of the sacrifice, grammar, law or astronomy. Again, incourse of time there developed by the side of these a class of institutions called Special Law Schools which gave a thorough training in the different duties of men.

The most important seats of learning, however, were the Parishads or Brahmanic Colleges' answering to the Residential Universities of Europe. These were originally, conducted by three Brahmins, but the number gradually increased till it was settled that a Parishad ought to consist of 21 Brahmins well versed in Philosophy, Theology and Law. Unlike the later Buddhist or modern European Universities they were situated in places far away from the din and

¹ Brihat Aranyaka Upanishad VI. 2.

² Manu XII, 111.

³ Civilisation in Argient India Vol. I (p. 163)—by R. C. Datta.

bustle of the town. The students were not only given free tuition but free board and lodging as well, the expenses under various heads being met from the endowments made by the kings, princes and the rich of the land, who considered it a sacred duty to help liberally those interested in education.

ORGANIZATION.

According to the Hindus the period from birth to the fifth year of a child was regarded as the time for play. After which or at any rate from the 8th year the time for study commenced. The child had to be initiated before he began to study. Hence the initiation ceremony as it marked the beginning of a boy's spiritual life, was considered as the momentous event in his life. The time for initiation was generally fixed

काल: क्रोड़नकार्ग ते तदन्तेऽध्ययनस्य ए। ततः समसभीगानां तदने विध्यते तपः ॥ Vishnu Purana Part I, XII, 18. at the 8th, 11th and the 12th, year in the case of a Brahmin, Kshatriya or a Vaisya boy respectively. But it might take place between 8 and 16 in the case of a Brahmin, between 11 and 22 in the case of a Kshatriya and between 12 and 24 in the case of a Vaisya.

The initiated boy was then sent to the house of his spiritual teacher or Diksha Guru so that under his fostering care he might receive his spiritual, moral and intellectual training. Here he lived as a religious student for 12, 24, 36 or 48 years according as he wished to master one, two, three, or four vedas. The training he received in the house of his guru was intended to open his mind by making him acquainted with moral precepts and life's duties and to develop in him such an attitude of mind and habit that he might become fit intellectually, morally and physically for the life to come or in other words, the whole course was intended to train the will. Hence, he spent a few hours daily, generally in the evenings Manu II 36. 2 Ibid 38. 2 Vishnu Purana Part III, XI, 96. in receiving lessons in the secrets of religion and in the various sciences and arts. While the proper ideals, which form the second phase of training the will, came to him from the moral and pure atmosphere in which he was brought up. But to develop in him habits of action i.e. to enable him to act up to the knowledge of right and ideals he possessed (which is the third phase of will-training), the teacher from the very beginning taught him purity of habits, customary conduct, attendance on the sacrificial fire and sandhya devotions (69)

The religious student had to rise before sun-rise and engage himself every day in duly muttering in a pure place the Gavitri during both the twilights with fixed attention after having made his ablution and become pure (222). Also he had to collect wood for the holy fire, beg food of his relations, sleep on a low bed and perform such offices as might please his preceptor until his return home (108). Besides, he had to wear simple clother (44) and avoid eating to excess (57). In fact, in order to be able to form habits of

TORGANIZATION. self-abnegation and self-control he had, to live a life of Brahmachari. Accordingly, the religious student was advised to avoid taking ·honey, meat, sweet scents, garlands, sweet and pungent drinks, intercourse with woman; all sour gruel or acid liquid, and the killing or injuring of animals (177); and to refrain from smearing the body with oil, painting t eyes with collyrium, using shoes or an umbre la, desire for enjoyment, anger, covetousnes dancing, singing and playing on musica instruments (178). He was further enjoine to forbear from gambling, petty quarrels calumniating people, speaking lies, looking wistfully at women, embracing them, and doing harm to others. Besides, he had to lie down alone in all places and should always remain physically pure (180).1 .Thus the life of the student in the house of the preceptor was one of discipline, and the fact that the student had to go through this drill and to reside in the house, of the preceptor shows that the Hindus even then understood that "religion and morality are not matters 1 Mann. II.

of the intellect merely—that they cannot be so much learnt as practised; and that the atmosphere or environment to which a child is accustomed in early years is the most powerful agent in shaping and forming his religion and moral beliefs."

When the pupil thus finished his apprenticeship he was allowed to return to his paternal home. He then married and began his household life.

Method:—1. The following description found in the 15th chapter of the Prātisākhya of Rig Veda, gives in brief the method of teaching that was in vogue in the schools of ancient India.

The pupils then used to embrace the feet of their teacher at the beginning and end of a lecture. This practice corresponds to the modern practice of rising and saluting a teacher when he enters and leaves the class.

It appears from the description that the different words of a question (prasna) were first pronounced by the teacher and repeated by the pupil. These, when necessary, were explained by the teacher. The

students then had to repeat the question once more; after which they went on learning it by heart, pronouncing every syllable with the high accent. Thus the recital was not mechanical as attention was constantly required for the modification of the accents.

- The lectures continued during about half the year, the term beginning generally with the rainy season. There were, however, many holidays on which no lectures were
- 2. According to Bachaspatimisra, সংখ্যান (hearing of words) মূল্ব (apprehension of meaning), जह (reasoning leading to generalisation) सृहत्पाप्ति (confirmation by a friend or teacher) and दान (application) are the five steps for the realisation of the meaning of a religious truth (तत्त्वक्या).2 Curiously enough from the teacher's point of view these correspond almost to the Dewey's steps.3

Curiously enough this corresponds to the time when the, Curiously enough this corresponds to the time when the, session in our colleges begins now.

Mahamahopadhaya C. K. Tarkalenkara—Lectures on Dewey—How we think. The following sloka gives steps

cimilar to those of the Herbartians.

यत्रुषा त्रवणक्षेत्र युष्ट्रणं घारणं तथा । कहापोहार्य विचान तस्त्रचान्य घोगुपाः ॥ (कानन्दकी)।

Dewey's steps.

(1) স্বাহ্মথন 1. A problem and its location.

(3) जह 2. Suggested solutions and (4) सुद्धत्माप्ति selection of a solution

(5) दान 3. Action (application)

Teachers' course':—In the Hindu system an individual before he was allowed to become a teacher, had to pass through the recognised curriculum and to fulfil all the duties of a Brahmanical student (brahmacharin).

Discipline:—Discipline in the Hindu system was generally mild. Sloka 159 (Manu II) lays down that a teacher should give instruction for the benefit of his students, without doing injury (by way of punishment) to them, and by using sweet and mild words. But when a pupil committed grave faults he was beaten with a rope or split bamboo on the back part of his body only, and never on the noble part. He who would strike him otherwise would incur the guilt of a thief.2

It is interesting to note here that the

¹ Pratisēkhya of Rig Veda-Chap. XV.

² Manu VIII-299-300.

rules laid down by Chanakya¹ correspond more or less to those laid down by the modern educators:

"लालयेत् पञ्चवर्षाणिह्दशवर्षाणि ताड़येत् । प्राप्तेतु पोड़िये वर्षे पुत्ने मित्रवदाचरेत् ॥"

or "the son is to be brought up till the 5th year, he should be governed the next ten years; as soon as he attains the 16th year, he should be treated as a friend."

References:-1. Vishnu Purana.

- 2. The Laws of Manu.
- 3. Lectures on the Origin of Religion
 Maxmuller.
 - 4. Civilisation in Ancient India by R. C. Dutta.
 - Rig Veda—Prātisākhaya.
 - Lectures on Hindu Philosophy-Mahamohopadhaya Chandra Kanta Tarkalankara.
- 7. History of Education by Graves.
 - 8. Kâmandaki.
 - 9. Bühler's Introduction to the Laws of Manu.
 - 10. Lalita Vistara-R. L. Mitra.

¹ Chanakya or Kautilya, the author of Artha-Sastra and the edept in statecraft and minister of Chandra Gupta, the grandfather of Asoka the great.

νÌ

, HINDU EDUCATION.

1. The modern educators recognize two

GENERAL CHARACTERISTICS.

factors in education: (i) internal and (ii) external. The first includes all the congenital tendencies and innate capacities or in one word, the potentialities of the child: These determine his future possibilities; for, the teacher cannot develop in him that which is not there in the child potentially. The second is the child's environment. This includes not only his social heritage which through the forces of suggestion and imitation operates on him and unconciously tends to shape his language, manners, customs and beliefs, but also those influences which are consciously and designedly brought to bear upon him by

the adult portion of the community. These external influences, therefore, chiefly determine the amount and direction of his develop:

Residential system was free from the defects and artificialities which take from the value of modern Boarding Schools and Residential Universities. Hence to the credit, of the early Hindus it must be said that the idea of the Residential system in its more or less perfect form, was conceived and realized in India long before it was conceived in the outside world. The system still survives in our tols. The pandit or teacher keeping a tol not only teaches the students gratis but allows them free board and lodging.

2. Social efficiency has from time immemorial been set up as the aim of education. The term, however, has not always been used in the same sense. From the modern point of view a socially efficient man is he who is not a drag on his society and who far from interfering with the efforts of others, contributes to the progress and development of the society from which he has freely received nourishment for his body and soul. Thus this aim now includes not only the bread and butter aim but the moral one as well. Let us see how far the ancient Hindu

system of education realized this aim. To understand this we need first to know what the daily duties of a householder then were: They were :- (i) the study and teaching of the Vedas. (ii) offering oblations to the manes or spirits of his ancestors, (iii) offering oblations to the gods, (iv) offering food to living creatures and (v) receiving guests. We have seen that the Hindu religious student received at school a thorough and practical training in the study of the Vedas, in performing sacrifices and in every other duty connected therewith. Besides, he received education and training in the various sciences and fine and mechanical arts. Thus in the Hindu system the life outside was reproduced in miniature in the school—a fact emphasized by modern educators, specially by Prof. Dewey of Chicago; and it may be said that the pupil was made fit for 'a practical, successful efficient, useful and happy life of action'.

3. Again, as the development of the spiritual side concerned the Hindus more than anything else, the moral purpose com-

pletely dominated the school life of the Hindu student. The Hindu teacher also, therefore, took the greatest possible care to train the will of his disciple. Hence the Hindu boy had to go through a course of discipline which helped to form his mind and to make his body fit to carry, out its orders. Through abstinence and forbearance the student developed in himself the virtues of fortitude and control of temper and passions: through attendance on the preceptor and doing everything that contributed to his happiness, he was taught self-abnegation, patience, endurance, loyalty and devotion. In short, the system helped the boys to form habits, of courtesy, of temperance in thought and action, and of giving expression by deed to the ideas of harmonious and virtuous conduct in life.

Further, we have seen that the Hindu boy received at school the preliminary training in religious practices and principles. In this respect his training was in accordance with the principles laid down by modern thinkers. A modern writer has said that as the child is incapable of forming abstract religious conceptions, the training during this period "should be of the heart rather than of the head and perhaps even more of the hand i.e. a training in doing, or, in other words, taking part in religious forms". So in initiating the child early to religious forms and practices the Hindu system met the demands of the nature of the child in this direction most effectively.

Again during the adolescent period when the sex and other allied instincts manifest themselves and when the dawning parental instinct impels the youth to act not merelyfor self but for the good of the world, the Hindu student received a thorough training in self-control and self-sacrifice. It is this training which stands in marked contrast with the secular education given in most of our modern? Indian schools and which enabled the Hindu in ancient times to lead a purer and more self-controlled life than his brethren of

¹ Kirkpatrick-Fugdamentals of Child Study.

Of course it is in just this training that the Public School" in England excels.

the present day. Besides, this training made a Hindu feel, quite unlike his modern successor, that a day without a few guests in the house was a day spent in vain. Indeed, the Hindu system fulfilled most successfully its mission in giving a religious and moral training to the Hindu student at a period of his life which 'is the time of all others for the development of genuine religion'.

The peculiar merit of the Hindu system was that the precepts were not taught only but reduced to practice. This made the system more practical and effective. Further, the teacher in the Hindu System 'authenticated' and 'illustrated' in his own life the theme of all the sacred writings, and thus used to hold up before his disciple a living model which he could easily imitate consciously or unconsciously through constant association. This fact made the teacher a prominent figure, in the Hindu Systema feature greatly emphasised but not always. realized in the present system. The teacher's influence on the disciple was enhanced a thousand-fold by the fact that the Hindu.

student and his preceptor were bound not by any economic ties, but by those of friendship and affection. Hence the Hindu teacher's personality exerted a far-reaching influence upon his disciple in moulding his mind and character.

- 5. Again, it must be said that the Hindu System presented one more aspect which is emphasised by the upholders of education in a *Democratic Society* viz. that education should be as far as practicable *free* and *compulsory* (vide p. 29).
- 6. Further, it may be said that like Froebel the Hindus urged that religion, industry and temperance should mark their system of Education.

Lastly, it must be said that the condition of things has since changed so considerably that to pursue the system at present in detail will be neither possible nor desirable, though by embracing its spirit we shall surely exalt our life and character.

^{&#}x27;It is a good sign that in certain quarters e.g. at the Gurulul (in Hardwar) and Satyabadi (in Orissa) some attempt is being made to combine the traditions of the ancient Rishis with the most modern scientific methods. Sir James

References :-- 1. The Institutes of Manu.

- 2. Vishnu Purana.
- .3. Srimat Bhagvatgita.
 - 4. C. K. 'Tarkalankara: Lectures on Hindu Philosophy.
 - 5. W. B. Pillsbury: Essentials of Psychology.
 - 6. Max Muller: India, what can it teach us?
- 7. Max Muller: Lectures on the Origin of Religion.
 - 8. Kirkpatrick: Fundamentals of Child Study.
- 9. Froebel: The Education of Man.
- 10. W. C. Bagley: The Educative process

Lieutenant Governor of the United Provinces thus remarks about the Gurukul School: "I have been more than rewarded by visiting one of the most wonderful, interesting and stimulating institutions. Here we have a band of ascetics, devoted to their duty, and working in the wilderness following the traditions of the Ancient Rishis, combined with the most modern scientific methods, and working practically for nothing, and a set of students of strong physique and obedient, loyal, faithful and devoted, extraordinarily happy and extraordinarily well.

I will not talk of the political aspect of the question where politics are unknown."

VII

UNIVERSITIES IN ANCIENT AND MEDLEVAL INDIA.

ANCIENT PERIÒD.

We have seen that north-west India was the cradle of early Hindu civilisation. Hence it had been for a long time the centre of Hindu learning. Kashmere and Badarika-sram long enjoyed the reputation of, having controlled it.

Takshasila:—In the 6th century B. C., however, the chief centre of learning seemed to have been transferred to Takshasila (Taxila). It was the head quarters of Brahmanical learning. It is said that sixteen branches of learning were taught here in the different schools each of which was presided over by a special professor. There were schools of painting, sculpture, imagemaking and handierafts at Takshasila. The great grammarian Panini and Chanakya (Kautilya), the minister of Chandra Gu ta,

are said to have had their education in the university. The student here had to pay for his education.

The university was specially reputed for the success it attained in medicine. The royal physician Jivaka, who had cured the king Bimbisara of Magadha and also the great Buddha himself of some painful diseases, had studied medicine here under the great Rishi professor, Atreya. He had been in the university for seven years after which he had to undergo an examination in which he was asked to describe the medicinal use of all the vegetables, plants, creepers, grass, roots etc. that could be found within a radius of fifteen miles round the city of Taxila. Jivaka examined them for four days and then "submitted the results informing his professor that there was hardly a single piant which did not possess some medicinal property." The above description enables us to form some idea of the system of examination of the time.

Universities in Ancitut India by Rai Sarat Chandra Day Bahadur, (The Hindustan Review, March, 1996).

The university maintained its reputation for several centuries and was in the most flourishing condition even in the 3rd century B. c. when Asoka the Great, was the reigning Emperor of India. In describing the condition of India during Asoka's reign Vincent Smith writes, "the sons of people of all the upper classes, chiefs, Brahmans, and merchants flocked to Taxila, as to a University town, in order to study the circle of Indian arts and sciences, especially medicine."

As the wave of civilisation travelled towards the east and south, the seat of learning was transferred to the various viharas which had arisen in the different parts of the country since the time of Buddha. These viharas developed from the groves called Aroma where under the shelter of trees spiritual training was publicly imparted and where the Buddhist monks then called Anogarika resided. In fact, education in those days was spread at home and abroad by the Buddhist monks. Wherever they clustered together in monasteries or viharas

a university, grew up and each of these viharas was presided over by a Kulapati corresponding to the principal of a modern college.

Sridhanya Katak:—The university of Sridhanya Katak which was situated on the banks of the Krishna in Vidarbha (modern Amaraoti) attained celebrity as the seat of both Brahmanical and Buddhist learning during the time of siddha Nagarjuna. The great monastery of Du-pong near Lhasa which contains a university with six colleges was erected after its model.

Nalanda:—The university which long enjoyed the reputation of being the most renowned seat of learning in ancient India and attracted students from different parts of Asia, was that located in the great Vihara of Nalanda. It was then known all over Magadha by the name of Dharmaganja. When it was at the height of its glory and was the resort of foreign students and scholars numbering 10,000. Europe was in the darkest watch of the long night of the middle ages. The Saracenic schools

and Arabic learning also had not yet been founded.

It had been in existence for seven centuries when the Chinese traveller Hiuen Tsang visited it (in the 7th century). It is said that four kings viz. Sakrádityá, Buddha Gupta, , Tathāgatagupta and Bālāditya successively had devoted their pious efforts to this great architectural work! Its genuinely historical period, however, begins with the time of Bâlâditya who flourished in the middle of the 5th century A.p.²

The great college stood in the middle and was surrounded by eight other halls. The priests resided in the courts which lay beyond these. The observatories stood within the premises. Its three grandest buildings were called Ratnasagara, Ratnadadhi and Ratnaranjaku. Of these Ratnadadhi was nine storeyed and in it was located the library then considered the largest in India.

¹ Civilisation in Ancient India—R. C. Dutta:—Vol. II pp. 148-49.

² Dacca Review Vol. 2 No. 7 Oct., 1912 (University of Nalanda by S. Datta).

S. C. Das's Universities in Ancient India.

and most brilliant achievements were in the field of Logic; and it is said that of the 'schools' of Nalanda the most difficult were the Schools of Discussion or Logic. The biographer of Hiuen Tsang says: "Of those from abroad who wished to enter the Schools of Discussion, the majority beaten by the difficulties of the problems withdrew; and those who were deeply versed in old and modern learning were admitted only two or three out of ten succeeding."

Organisation:—The University of Nalanda like the modern Tibetan Universities was a monastic university. Hence, as a rule, it admitted those who embraced monastic life. Monks from China, Tibet, Central Asia, Bokhara, Corea found free board, lodging and instruction here.

Each of the subjects was taught and discussed by a separate professor in one of the six colleges comprising the university. Those among the venerable monks who

or the laud in the possession of the Nalanda monastery. Contained more than 200 villages. They were bestowed upon it by kings of many generations." Dacça Review Vol. 5, No. 1, April, 1915.—Page 11.

might have distinguished themselves by eminent intellectual abilities, old age and noble character were selected as professors. Like the professors of modern universities, each professor in the Nalanda University had charge of one subject only. The students also attached themselves to one or more professors according as they wanted to specialize in one or more subjects. But a general average knowledge was required in all the principal subjects.

It will be noticed here that the curriculum of Nalanda excludes all technical sciences. It therefore was a deterioration from Taxila where the curriculum was more varied. But this was in appearance only, for the greatness of Nalanda lay not so much in the variety as in the depth of learning acquired by its scholars. Again, there is nothing strange in the fact that the technical arts should have been excluded from the curriculum in the Nalanda University considering that a monk in it had no care about food, lodging or clothing which were supplied to him gratis. In fact the monks of the great monastery.

had hardly any secular care and their whole endeavour was given to intellectual and spiritual improvement.

The university rose to eminence under Siladitya's patronage, but after his death it began to decline and continued to exist till about the end of the 9th century.

MEDILEVAL PERIOD.

Odantapuri:—During the declining period of the University of Nalanda another monastic college was erected at Odantapuri (Bihār) by one Gopāla or Lokapāla who is said to have ascended the throne of Bengal about 730 A.D. It contained a splendid library of Brahmanical and Buddhist works, which was destroyed at the sack of the monastry and the massacre of its monks by the Muhammadans (in A.D. 1197) who dealt a death-blow to the Buddhists and their religion.

Sakya:—The great monastery of Sakya which became the seat of the first grand heirarchy of Tibet (about 1202 A.D.) and

V. A. Smith.—The Early History of India (3rd Edition).

followed Odantapuri in the details of monastic discipline and education, was built after its model.

Vikramasila:—Gópala's son Dharmapāla, (A.D. 800) erected another monastery at Vikramasila in Bihār. With this monastery the University of Nalanda is said to have had intercourse for some time. The monastery of Vikramasila was for long the renowned centre of Tantric Buddhism and attracted numerous students from abroad.

Like Nalanda the monastery of Vikramasila possessed a university with six colleges. These were placed under the supervision of six door or dvara pandits during the reign of king Bhaya Pāla. Four of these colleges stood at the four gates of the monastery to which pupils had free access for the purpose of study. The central building called 'the House of Science' was used by the monks for studying the Pragna Paramita Scriptures. The two pandits who taught theology in the Central College were called the 1st and 2nd pillars of the University. The resident pupils received their food gratis.

from the four Satras (free boarding hostels) which were established inside the monastery at the four gates and were endowed by the princes and nobles of the country.

The University worked successfully for four centuries and disappeared with the advent of the Muhammadans.

During the period of the revival of vedic Hinduism the principal seats of Hindu learning were at Kanouj and Benares in northern India. Under the Sen Kings of Bengal (a. D. 1119-1200), Sanskrit learning was carried on first in Mithila and then in Navadwip. The latter place fortunately survived the shock of the Muhammadan attack and during the mediæval period gave birth to a long succession of great scholars, like Raghunath, Raghunandan and Sri Chaitanya. . The subjects taught here were (i) Logic, (ii) Smriti or works on civil and religious usage, (iii) Jyotish or Astronomy, (iv). Grammar, (v) Kavya or Literature and (vi) Tantra. But the greatest achievements of the •university were in the field of logic.

In the Deccan Vijayanagar was for a

long time (14th century A. D.) the refuge and centre of literary activity; and it appears from Ayeen Akburi that even at the time of Akbar Benares was a centre of Hindu learning and was in its flourishing condition.

Both Benates and Navadwip are still renowned as the principal seats of Sanskrit learning organized after the ancient manner.

- References:—1. Universities in Ancient India by Rai Sarat Chandra Das Bahadur (The Hindustan Review, March, 1906).
 - Civilisation in Ancient India by R. C. Dutta Vol. II.
 - 3 Nalanda University by Sukumar Dutta. Dacca Review—July, 1911, August, 1911, December, 1911 and October 1912.
 - 4. Beal's life of Hiuen Tsang
 - 5. Takakasu
 - 6. Indian Sculpture and Painting by E. B. Havell
 - 7 Ayeen Akbari translated by F. Gladwin.
 - 8. Visha Kosh (Bengali) edited by Nogendra Nath Basu
 - The Early History of India by V. A. Smith.

The following is a list of the subjects that were cultivated by the ancient Hindus.

VEDIC LITERATURE.

- 1. The Vedas including :-
 - (i) The Samhitás.
 - (ii) The Bráhmanas.
 - (iii) The Upanishads.
 - (iv) The Sútras.

SANSKRIT LITERATURE.

- 1. Belles-Lettres:-

 - (i) Epic Poetry: a. Itihása.
 - b. Puránas.
 - c. Kavyas.
 - (ii) Dramatic Poetry.
 - (iii) Lyrical Poetry.
 - (iv) Ethico Didactic Poetry.
 - (v) History and Geoora ! y.

- 2. Science and Art:
 - · (i) Science of Language.
 - a. Grammar.
 - b. Lexicography.
 - c. Metric, Poetics and Rhetoric.
 - (ii) Philosophy including Logic.
 - (iii) Astronomy, Geometry, Arithmetic, Algebra, Trigonometry.
 - (iv) Medical Science.
 - (v) Art of war, Music, Forma tive and Technical arts.
- 3. Works of Law, Custom and Religious worship.

ORIGIN AND DEVELOPMENT OF SOME OF THE SUBJECTS CULTIVATED BY THE ANCIENT HINDUS.

In modern times material needs more than spiritual absorb the interests of the people and the various sciences and arts also have been developed, more or less, to meet their material needs and to enable them to hold their own in their political and economic relations. But in ancient India, where the struggle for existence was a comparatively easy one the energies of the people were directed into a different channel and religion more than any thing else became their all absorbing interest. It embraced not only worship and prayer but also such subjects as philosophy, morality, law and government. Hence literature, science and art all originated from the exigencies of religion and served religious purposes.

The Science of Phonetics:—It arese in India when the Brahmins thought it

necessary to preserve the accurate pronunciation of their hymns. It is so perfect that though it had its rise as early as the fifth century B. c. it has not as yet, says Max Muller, been surpassed in its analysis of the elements of language by any representative of phonetics.

Grammar:—It grew up in India in connexion with the study and recitation of the vedic texts. The subject made such wonderful progress here that eminent authorities like Max Muller and Weber are eloquent in their praise of it. Panini's work is the magnificient edifice of the Indian science of language. Max Muller has enjoyed it so much that he says, "In grammar, I challenge any scholar to produce from any language a more comprehensive collection and classification of all the facts of a language than we find in Pânini's Sûtras."

. Metre:—In metre, the success of the Hindus was great. According to Max Muller, the observations made by the ancient Indian authors and their use of the technical

terms give a clear confirmation of the latest theories of modern metricians. The same authority says that metres were connected with music and dancing which originally subserved religious purposes and subsequently helped the development of *Drama* in India.

Story-telling:—About story-telling Max Muller says, "some of the fables of the Panchatantra or Hitopadesa are excellent specimens of what story-telling ought to be."

Arithmetic—The decimal notation without which Arithmetic as a science would have been impossible, was the wonderful invention of the Hindus. The Arabs borrowed it from the Hindus and introduced it into 'Europe.'

Algebra:—In Algebra the Hindus attained to a high degree of proficiency quite independently. Aryabhatta (476 A. D.) was the first writer on Algebra. He was succeeded by Bhâskarâcharja (11 14). There are solutions of remarkable problems in Bhâskara

¹ Macdonell—A History of Sanshrit Literature and R. C. Dutt—Civilisation in Ancient India.

which were not achieved in Europe till the 17th and 18th centuries. Besides, the Hindus were the first to make an application of Algebra to astronomical investigations and to geometrical demonstrations; and the manner of their conducting it, is so remarkable that it has received the admiration of many a modern European mathematicians.

Geometry:—Geometry took its rise in India from the construction of the altars and their enclosures. It, however, did not make much progress here. As soon as it was found that geometrical truths could be represented by Algebra, Geometry gradually fell out of use. The elementary laws of Geometry that the Hindus had discovered were introduced into Europe where the science has received its highest development.

Trigonometry:—This subject was the peculiar invention of the Hindus. Bhaskara was the first man in India to write on Spherical Trigonometry.

Astronomy:—Astronomy, like Geometry, received its inspiration from religion. The subject in its elementary form was

During the eighth and ninth centuries the Arabs were disciples of the Hindus. They translated Aryabhatta's Surja Siddhanta and afterwards made much progress in the Science."

Medicine: The healing art had its beginning in the vedic times. Reference of illnesses and healing herbs are found in the Atharva Veda. Not only did the Hindus thoroughly understand animal anatomy but they showed wonderful skill in the treatment of snake-bite. They gathered valuable information regarding the medicinal properties of minerals, of plants and animal substances and their chemical analysis and decomposition. Their method of determining the origin and nature of disease was remarkable and bespeaks a very keen observation.

In Surgery the Indians seem to have attained a special proficiency. 'According to 'Susruta', says Dr P. C. Roy, "the dissection of dead bodies is a sine quâ non to the 'student of Surgery and this high authority lays particular stress on knowledge

gained from experiment and observation." Even at the present day the European surgeons have borrowed from the Hindus the operation of rhimplasty or the formation of artificial noses. There were many writers on the subject of medicine; but the most important were Charaku and Susruta. Their works were translated into Arabic at the close of the eighth century and were introduced by the Arabs into Europe where they continued to exert their influence down to the 17th century.

Music:—This science may be traced to the vedic times. Vedic literature contains numerous allusions to musical instruments. The earliest mention of the names of the seven notes of the musical scale is found in the *Chhandas* and the *Siksha*. Here only fragments of the writings cited in the scholia of the dramatic literature have been preserved. Some of these writings were rendered into Persian and Arabic.

Artha-Sastra:—In this also the Hindus attained great achievements. Charakya's

P. C. Roy-A History of Hindu Chemistry, p. 105

book is the most remarkable of the books on the subject.

Technical Arts:—The achievements of the Hindus in this direction were great. Even in the first centuries B. c. and A.D. technology (Varta) was amply patronised and the Government had a special department to see to it.

The Indians from the earliest times had enjoyed celebrity in the production of delicate woven fabrics, in the mixing of colours, in the working of metals and precious stones, in the preparation of essences and in all manner of technical arts.

Law:—The rules laid down in the Grihya and Dharma Sutras show clearly that the Hindus attained distinct achievements in this branch of science.

Painting, Sculpture and Architecture:—Indian art, like astronomy and geometry, received its inspiration from religion. It was used, says Havell, 'for the interpretation of the esoteric teachings of philosophy and religion'. It was not in the early times, as it is now, a specialised study

The Ideals of Indian Art-p. 176__

divorced from religion and ignored by the universities. It was an integral part of national life and thought.

In portrait-painting the Hindus seemed to have excelled in the olden times. In sculpture, they attained such celebrity that reliefs carved upon stone depicting various scenes are still regarded as the most admirable monuments of the Hindu intellect. The achievements attained in architecture were still greater.

Nature Study¹:—The Hindus were pre-eminently observers of nature. But while the modern scientist studies her ways and means to make her serve the material needs of mankind, the Hindus dived deep into her secrets for the intimation she gave them of a higher spiritual life.² The whole of the Yoga system had its origin in the study of nature. It arose from the study of the habits of frogs, serpents and tortoises.

The Hindus emphasised the study of nature so that the individual might be led

¹ Ibid pp 107-108 ; 158-163

Srimat bhagvat Canto VII. 32-36 Markendeo Puran chap. XXVII

to believe in the existence of God by realising the spiritual nature of all things. In fact, his deep religious instinct inspired the Hindu to seek in every aspect of nature a symbol of worship and an attribute of the Divine. His intense feeling of reverence and abiding love of nature found expression in and developed all Hindu Art and Literature. Thus, says Havell, "It seems to me that those who refuse to recognise the intense love of nature with which Hindu thought is penetrated must miss entirely the beauty of the great Hindu poets, of Valmiki and Kalidása, as well as the beauty of Hindu Art."

Physics:—The Vaisesika system of Kanada was the first attempt made in India to inquire into the laws of matter and force, of combination and disintegration. Kanada, says Dr. P. C. Roy, 'chiefly occupied himself with the study of the properties of matter. The atomic theory, as propounded by him, has many points in common with that of the Greek philosopher, Democritus. His theory of the propagation of sound cannot

fail to excite our wonder and admiration even at this distant date. No less remarkable is his statement that light and heat are only different forms of the same essential substance". He also speaks of gravity as the cause of falling.

- References :- 1 The History of Indian Literature-Weber.
 - A History of Sanskrit Literature—A. A. Macdonell.
 - 3. Civilisation in Ancient India-R. C. Dutta.
 - 4. A History of Hindu Chemistry-P. C. Roy.
 - 5. The Ideals of Indian Art—E. B. Havell.
 - 6. The Positive Sciences of the Ancient Hindus—Dr. B. N. Seal.
 - 7. Srimatbhagvat.
 - 8. Markendeopuran.

The following list gives us a fair idea of the arts and occomplishments current among men at the time of Buddha (567 B.C.—487 B C.)¹

Physical Exercise:—Leaping, running, wrestling, archery, quick walking, jumping, swimming, riding and boxing.

General Sciences and Arts:—Writing, book-writing, arithmetic, poetry, grammar, knowledge of vedic glossary, Nigamas, Puránas, Itihás, Vedas, Nirukta (lexicography), Sikshá (phonetics) Chhanda (metre), yajna ritual and ceremonial, Sánkhya, Yoga and Veishashika doctrines, logic (fletwidya) political economy (Arthavidya) ethics, surgery (Asura), knowledge of the cries of animals and birds, guessing, divining others' thoughts, explaining enigmas, explaining dreams, knowledge of the characteristics of women, men, horses, cattle and story-telling.

Inlita Vistara

Aesthetics:—Playing on the Vina, music, dancing, dramatic exhibition, reciting songs, symphony.

Hand-work:—Lac-ornaments, wax-work needle-work, basket-work, leaf-cutting, dyeing cloth, tinting jewels.

Other accomplishments:—Hair dressing, art of decoration, pantomime, masquerade.

The following list of sixty-four Arts or Kalás, which appears in Vatsyayana's Kāma Sútra enables us to form some idea of the accomplishments which were considered appropriate for young ladies in the first centuries B.C. and A.D.

I. Literary accomplishments.

- 1. Reading and elocution.
- 2. Lexicography and Versification.
- 3. Exercises in enigmatic poetry.
- 4. Filling up of stanzas of which a portion is told.
 - Guessing unseen letters and things held in a closed fist.
 - 6. Use of secret language.
 - 7. Knowledge of languages.
 - 8. Solution of riddles.
 - 9. Solution of verbal puzzles.
- 10. Mimiery.

^{&#}x27;Young ladies alone were recommended to practice them. S'ridhkra makes lialadeva and Krishna learn these accomplise ments from their gutor S'andipant but many of them are obviously feminine and would not suit a man.

II. A. Domestic Arts.

- (i) Tailoring or sewing.
- (ii) Making bows, sticks etc. with
- (iii) Bed making.
- B. Culinary Art.
 - (i) Prestidigitation.
 - (ii) Ornamental Cookery.
 - (iii) Preparation of beverages,

C. Arts relating to Toilet, Dress, Luxuries or Comforts.

- (i) Marking the cheeks before the ears with sandal and other pastes.
- (ii) Display of jewellery on the person.
- (iii) Perfumery.
- (vi) Making of ornaments of flower for the head.
 - (v) Making of necklaces and garlands etc.
- (vi) Staining, dyeing and colouring of the teeth, cloth and the body.

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(vii) Making use of pomades etc.

(viii) Coiffure.

(ix) Changing the appearance of. fabrics.

III. Manual work and occupations.

- (i) Drawing. (ii) Pictorial Art.
- (iii) Scenic representation.
- (iv) Modelling.
- (v) Wood carving.
- (vi) Making ornamental designs on the flour with rice-meal and flowers.
- (vii) Making beds of flowers.
- (viii) Making artificial flowers with threads.
 - (ix) Making of flower carriages.

.IV. Recreative arts.

- (i) Making fountains.
- (ii) Jugglery.
- (iii) Making twist with a spindler (Tarku).

- (iv) Cock-fighting, quail-fighting, ramfighting etc.
 - (v) Teaching of parrots to talk.(vi) Devising different expedients for
 - making the same thing.

 (vii) Tricks.
 - (viii) Dice-playing. •
 (ix) Incantations to attract persons
 - and things.
 (x) Assuming various forms.
 - (xi) Tricks as taught by
 Kuchumara
- V Scientific arts.
 - (i) Setting Jewels,
 - (ii) Decoration of houses.(iii) Testing of silver and jewels.
 - (iv) Knowledge of metals.
 - (v) Colouring of gems and beads.
 (vi) Ascertaining the existence of
 - mines from external appearances..
 - (vii) Gardening, botany etc.
 - (viii) Making of monograms, logographs and diagrams. (ix) Lapidary art,

VI. A. Music.

- (i) Vocal music.
- '(ii) Instrumental music.
- (iii) Jaltaranga or 'playing on ,
 - china cups containing varying quantities of water to regulate the tone.'

(iv) Tattooing.

B. Drama—Acting

C. Etiquette

VII. Physical Exercises.

- (i) Juvenile sports.
- (ii) Physical Exercise.
- ' (iii) Dancing.
- ' (iv) Art of Warfare.

References:--(1) Lalita Vistara by R. L. Mitra.

(2) Srimatbhágvata.

Rules regulating the conduct of the disciple towards his proceptor

- 1. Having controlled his body, speech, organs (of sense) and mind he (the disciple) should stind with joined hands looking at the face of his preceptor. (Manu II, 192)
- 2. Let him always keep his right arm out of his upper garment, behave decently and keep his body well covered and sit down facing his teacher when asked to sit *down. (Ibid II, 193)
- 3. In the presence of his preceptor he should always eat less, wear a less valuable dress and ornament. He should rise earlier and lie down later (than the former). (Ibid II. L94).
- 4. He should not receive orders or converse with this preceptor) reclining on a bed or sitting or while eating or standing or with an averted face. (Ibid II: 195)

- 5 He should do (that) standing up, if his preceptor is seated on a seat, advancing towards him when he is standing, going up to him if he is walking and running after him when he runs. (Ibid II 196)
- 6. Going round to face him if his face is turned away, going up to him when he is at a distance but bending towards him while (he is) lying down or standing in a lower place. (Ibid II 197)
- 7. When his preceptor is nigh, his bed or seat should always be low. And within sight of his preceptor he should not sit carelessly. (Ibid II. 198)
- 8. He should not utter the mere name of his preceptor behind his back, even (without any epithet of honour) and he should not mimic his gait, speech and deportment. (Ibid II. 199)
- 9. A disciple should cover his ears or depart elsewhere from the place where (people) censure or defame his preceptor.
 - (Ibid II. 200)

 10. He should not serve the preceptor
- (by the intervention of another) while he

stands aloof, nor when he (himself) is angry, nor when a woman is near; if he is seated in a carriage or on a (raised) seat, he should get down and salute his preceptor.

- (Ibid II. 202)
- 11. The disciple should not sit with his preceptor to the leeward or to the windward (of him). And he should not say anything (regarding his preceptor) behind his back.

 (Ibid II 203)

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